

## REMARKS

### I. Status of the Application

Claims 1-4, 7 and 8 are presently pending in the application. Applicants request entry and consideration of the foregoing remarks, which are intended to place this case in condition for allowance.

The Examiner asserts that the reply filed by Applicants on May 28, 2004 was not responsive. The Examiner is of the opinion that the amendments to claim 1 make clear that the claim is no longer drawn to the elected invention. The Examiner states that the paper mailed February 19, 2002 in response to the Requirement for Restriction/Election mailed January 22, 2002, Applicants elected Group I, claims 1-8, drawn to method of preparing a polymeric brush substrate. The Examiner notes that claim 1, as amended in Applicants' response mailed May 28, 2004, is directed to a method of preparing a macromolecular array. The Examiner further notes that claim 1 recites "covalently attaching a plurality of macromolecules to a plurality of reactive groups on the polymeric brush." The Examiner concludes that claim 1 is directed to an invention that is independent or distinct from the invention as originally filed. Applicants respectfully traverse this objection.

Without acquiescing to the Examiner's objection, Applicants respectfully submit that claim 1 has been amended to recite a method of preparing a *polymeric brush substrate having a plurality of macromolecules thereon for use in a* macromolecular array. Support for a method of preparing a polymeric brush substrate can be found at least in claim 1 as originally filed. Support for such a brush having a plurality of macromolecules thereon can be found in the specification at least at page 19, lines 3-5, where Applicants teach polymeric brushes having macromolecules attached, and at page 25, lines 7-14, where Applicants teach a variety of

macromolecules that may be attached to a polymeric brush substrate. Applicants respectfully submit that the amendments presented herein do not raise new issues requiring further search, and add no new matter.

Applicants respectfully submit that a polymeric brush substrate having a plurality of macromolecules thereon is directed to the elected invention. In the Restriction Requirement dated January 22, 2002, the Examiner restricted the claims to Group I: a method of preparing a polymeric brush substrate; Group II: a method of affixing functional sites to a surface of a solid substrate; and Group III: a substrate. Applicants assert that the pending claims are clearly embraced by elected Group I: a method of preparing a polymeric brush substrate. Applicants note that a method of preparing a polymeric brush substrate having a plurality of molecules thereon was not restricted as being directed to an invention that was distinct from a method of preparing a polymeric brush.

In contrast to being directed to a different invention than that which was elected, claim 1 merely recites with more specificity that which Applicants originally claimed. That is, the step of covalently attaching a plurality of macromolecules to a plurality of reactive groups on the polymeric brush simply further defines in a more precise manner the structure of the polymeric brush substrates that were claimed in the application as filed. In addition, Applicants submit that the specification provides adequate support for a polymeric brush substrate having a plurality of macromolecules thereon. Applicants define their polymeric brushes as “capable of attachment or stepwise synthesis of molecules thereon” (page 8, lines 12-17) and teach a variety of macromolecules that may be attached to the claimed polymeric brushes (page 25, lines 7-14).

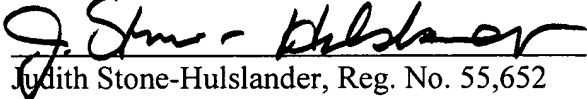
Accordingly, Applicants submit that the pending claims are directed to the originally elected subject matter. Therefore, Applicants respectfully request that the Examiner reconsider

and withdraw the objection to claim 1 as being directed to an invention that is independent or distinct from the invention originally claimed.

## II. Conclusion

Having addressed all outstanding issues, Applicants respectfully request reconsideration and allowance of all pending claims. To the extent the Examiner believes that it would facilitate allowance of the case, the Examiner is requested to telephone the undersigned at the number below.

Respectfully submitted,

Dated: November 24, 2007   
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